

## PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION  
(PCT Article 36 and Rule 70)

10/501747

REC'D 06 JUL 2004

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Applicant's or agent's file reference MAN-P3 PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB 02/00343	International filing date (day/month/year) 29.01.2002	Priority date (day/month/year) 29.01.2002
International Patent Classification (IPC) or both national classification and IPC H01L39/14		
Applicant MANNHART, Jochen Dieter		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the opinion</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		
Date of submission of the demand 03.07.2003	Date of completion of this report 05.07.2004	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Korb, W Telephone No. +49 89 2399-2284	



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No.

PCT/IB 02/00343

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

1-24 as originally filed

**Drawings, Sheets**

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

**see separate sheet**

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	
	No: Claims	1 - 4, 6 - 11, 15, 17, 22 - 24
Inventive step (IS)	Yes: Claims	
	No: Claims	1 - 24
Industrial applicability (IA)	Yes: Claims	1 - 24
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item I**

**Basis of the opinion**

1. The amendments filed with the International Bureau under Article 19(1) introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 19(2) PCT. The amendments concerned are the following:

"an aspect ratio  $a=L_{\text{par}}/L_{\text{per}}$  exceeding 1.5"

2. The amendments filed with the letter dated 17.12.02 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendments concerned are the following:

"an aspect ratio  $a=L_{\text{par}}/L_{\text{per}}$  exceeding 1.5"

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:

- D1: EP-A-0 540 416 (ALCATEL CABLE) 5 May 1993 (1993-05-05)
- D2: PATENT ABSTRACTS OF JAPAN vol. 1998, no. 05, 30 April 1998 (1998-04-30) & JP 10 012065 A (FURUKAWA ELECTRIC CO LTD), 16 January 1998 (1998-01-16) -& JP 10 012065 A (FURUKAWA ELECTRIC CO LTD) 16 January 1998 (1998-01-16)
- D3: EP-A-0 295 023 (AMERICAN TELEPHONE & TELEGRAPH CO) 14 December 1988 (1988-12-14)
- D4: DE 42 37 576 A (SIEMENS AG) 11 May 1994 (1994-05-11)
- D5: WO 99 14812 A (ACCESS EV; SCHMITZ GEORG JOHANNES ET AL) 25 March 1999 (1999-03-25)
- D6: HAMMERL G ET AL: 'A possible solution of the grain boundary problem for applications of high-Tc superconductors' ARXIV.ORG E-PRINT ARCHIVE, [Online] 13 August 2002 (2002-08-13), XP002216017 Retrieved from the Internet: <URL:<http://arXiv.org/abs/cond-mat/0208253>> [retrieved on 2002-10-09]
- D7: 'A possible solution of the grain boundary problem for applications of high-Tc

superconductors', 'HAMMERL G ET AL', 'ARXIV.ORG E-PRINT  
ARCHIVE', ", //13-08-2002,-,

2. Document D2 already discloses (see D2, abstract) a long superconductor with a grain structure as claimed in claim 1. In consequence the subject-matter claimed in claim 1 is not new. Likewise the disclosure of document D2 anticipates the subject-matter claimed in the method for making a long superconductor, claim 17.

Each of documents D1 and D3 appears to be of similar relevance.

3. Dependent claims 2 - 16, 18 - 24 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

The additional features are either already known from one of documents D1 - D3, are within the skilled man's general knowledge or can be derived from documents D1 - D7.

**Re Item VII**

**Certain defects in the international application**

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 - D3 is not mentioned in the description, nor are these documents identified therein.
2. The description (see pages 7 - 9, "Summary of the Invention") is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.
3. Claim 24 defines a product by a process step ("and/or fabricated ...). Thus claim 24 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined.